

**Figure 1:**

1/1

GGT ACC ACT TCT CTC AAT CGA ACT TTC TAA ACA ATG GCT TCT AAA CCT TTC TTG TCT CTT  
M A S K P F L S L

61/10

CTT TCT TTG TCT TTG CTT TTG TTC ACC TCT ACT AGT TTG GCT GAC CTG TAC TTC ATT TTG  
L S L S L L L F T S T S L A D L Y F I L

121/30

GAC AAA TCA GGA AGT GTG CTG CAC CAC TGG AAT GAA ATC TAT TAC TTT GTG GAA CAG TTG  
D K S G S V L H H W N E I Y Y F V E Q L

181/50

GCT CAC AAA TTC ATC AGC CCA CAG TTG AGA ATG TCC TTT ATT GTT TTC TCC ACC CGA GGA  
A H K F I S P Q L R M S F I V F S T R G

241/70

ACA ACC TTA ATG AAA CTG ACA GAA GAC AGA GAA CAA ATC CGT CAA GGC CTA GAA GAA CTC  
T T L M K L T E D R E Q I R Q G L E E L

301/90

CAG AAA GTT CTG CCA GGA GGA GAC ACT TAC ATG CAT GAA GGA TTT GAA AGG GCC AGT GAG  
Q K V L P G G D T Y M H E G F E R A S E

361/110

CAG ATT TAT TAT GAA AAC AGA CAA GGG TAC AGG ACA GCC AGC GTC ATC ATT GCT TTG ACT  
Q I Y Y E N R Q G Y R T A S V I I A L T

421/130

GAT GGA GAA CTC CAT GAA GAT CTC TTT TTC TAT TCA GAG AGG GAG GCT AAT AGG TCT CGA  
D G E L H E D L F F Y S E R E A N R S R

481/150

GAT CTT GGT GCA ATT GTT TAC TGT GTT GGT GTG AAA GAT TTC AAT GAG ACA CAG CTG GCC  
D L G A I V Y C V G V K D F N E T Q L A

541/170

CGG ATT GCG GAC AGT AAG GAT CAT GTG TTT CCC GTG AAT GAC GGC TTT CAG GCT CTG CAA  
R I A D S K D H V F P V N D G F Q A L Q

601/190

GGC ATC ATC CAC TCA ATT TTG AGC TCT GCT TCC CCA ACC AGC CCT AAG GTC TTC CCT CTC  
G I I H S I L S S A S P T S P K V F P L

661/210

AGC CTT GAC AGC ACC CCT CAA GAT GGT AAT GTT GTC GTT GCT TGC CTT GTC CAG GGT TTC  
S L D S T P Q D G N V V V A C L V Q G F

721/230

TTC CCT CAG GAG CCA CTC TCT GTT ACC TGG TCT GAA TCT GGA CAG AAT GTT ACC GCC AGA  
F P Q E P L S V T W S E S G Q N V T A R

781/250

AAC TTC CCA CCT AGC CAG GAT GCC TCC GGT GAC CTC TAC ACC ACC AGC TCT CAG CTC ACC

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N F P P S Q D A S G D L Y T T S S Q L T

841/270

CTT CCA GCC ACC CAG TGC CCA GAT GGT AAG TCC GTT ACC TGC CAT GTT AAG CAC TAC ACC  
L P A T Q C P D G K S V T C H V K H Y T

901/290

AAC TCC AGC CAG GAT GTT ACT GTT CCA TGC CGT GTT CCA CCA CCT CCA CCA TGC TGC CAC  
N S S Q D V T V P C R V P P P P P C C H

961/310

CCA CGT CTC TCT CTT CAC CGT CCT GCC CTT GAG GAC TTG CTC TTG GGT TCT GAA GCT AAC  
P R L S L H R P A L E D L L L G S E A N

1021/330

CTC ACC TGC ACC CTC ACC GGT CTC AGA GAT GCC TCT GGT GCC ACC TTC ACC TGG ACC CCA  
L T C T L T G L R D A S G A T F T W T P

1081/350

AGC TCT GGT AAG AGC GCT GTT CAA GGA CCA CCT GAG CGT GAC CTC TGT GGA TGC TAC TCT  
S S G K S A V Q G P P E R D L C G C Y S

1141/370

GTT AGC TCT GTT CTT CCT GGT TGT GCC CAG CCT TGG AAC CAC GGT GAG ACC TTC ACC TGC  
V S S V L P G C A Q P W N H G E T F T C

1201/390

ACT GCT GCC CAC CCA GAG TTG AAG ACC CCA CTT ACC GCC AAC ATC ACC AAG TCC GGA AAC  
T A A H P E L K T P L T A N I T K S G N

1261/410

ACC TTC CGT CCC GAG GTC CAC CTC TTG CCA CCA CCA TCT GAG GAG CTT GCC CTC AAT GAG  
T F R P E V H L L P P P S E E L A L N E

1321/430

CTT GTT ACC CTC ACC TGC CTT GCT CGT GGA TTC AGC CCA AAG GAT GTT CTT GTT AGG TGG  
L V T L T C L A R G F S P K D V L V R W

1381/450

CTT CAG GGA TCT CAG GAG CTT CCA CGT GAG AAG TAC CTC ACT TGG GCT TCC CGT CAG GAG  
L Q G S Q E L P R E K Y L T W A S R Q E

1441/470

CCA AGC CAG GGA ACT ACC ACC TAC GCT GTT ACC AGC ATC CTT CGT GTT GCT GCT GAG GAC  
P S Q G T T T Y A V T S I L R V A A E D

1501/490

TGG AAG AAG GGT GAG ACC TTC TCC TGC ATG GTT GGT CAC GAG GCC CTT CCA CTT GCC TTC  
W K K G E T F S C M V G H E A L P L A F

1561/510

ACC CAG AAG ACC ATT GAT CGT TTG GCT GGA AAG CCA ACC CAC ATC AAT GTT TCT GTT GTC  
T Q K T I D R L A G K P T H I N V S V V

1621/530

1650/538

ATG GCT GAG GCT GAT GGA ACC TGC TAC TAA

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**Figure 2. pGPTV-kan-ocs-ATR-IgA2:**

Bgl II

1 CTGGCCGGCGCCAGATCTGGGGAACCTGTGGTTGGCATGCACATACAAATGGACGAACGGATAAACCTTTTCACGCCCTT  
81 TTAAATATCCGATTATTCTAATAAACGCTCTTTTCTCTTAGGTTTACCCGCCAATATATCCTGTCAAACACTGATAGTTT  
161 AAACCTGAAGGCGGGAAACGACAATCTGATCATGAGCGGAGAATTAAGGGAGTCACGTTATGACCCCGCCGATGACGCGGG

EcoR I

241 ACAAGCCGTTTTACGTTTGGAACTGACAGAACCGCAACGTTGAAGGAGCCACTCAGCCGATCTGAATTCAGTGCTTTAAT  
321 GAGATATGCGAGACGCCTATGATCGCATGATATTTGCTTTCAATTCTGTTGTGCACGTTGTAAAAACCTGAGCATGTGT  
401 AGCTCAGATCCTTACCGCCGGTTTCGGTTTCAATTAATGAATATATCACCCGTTACTATCGTATTTTTATGAATAATATT  
481 CTCCGTTCAATTTACTGATTGTACCCTACTACTTATATGTACAATATTAATGAAAACAATATATTGTGCTGAATAGGT

Sac I Asc I

561 TTATAGCGACATCTATGATAGAGCGCCACAATAACAAACAATTGCGTTTTATTATTACAAATCCAATTTTGAGCTCGGCG  
641 CGCCAGCTGGACATCATGTTGGATATGAAACAACCTATTATTTATCTACATGTTTTAGATGTTATCTGATTATTTTTATAC  
721 GTAGTCTTCTATTGATGAGGAGTCTAAGGCTATAGAATTATATATCTAAATGATTAATATATATTATTAATAATTAAC  
801 AATAATTAATATATTATAATTTATATATATATATTTTATATTATTATAATAATATTCTTACAAATATAATTATTATATTC  
881 GACGGTATCGGGGCAATTGTATTCGACGGTATCGCGATAAGCTCGCGGATCCCTGAAAGCGACGTTGGATGTAAACATCT  
961 ACAAATTGCCTTTTCTTATCGACCATGTACGTAAGCGCTTACGTTTTTGGTGGACCCTTGAGGAACTGGTAGCTGTTGT  
1041 GGGCCTGTGGTCTCAAGATGGATCATTAAATTTCCACCTTCACCTACGATGGGGGGCATCGCACCGGTGAGTAATATTGTA  
1121 CGGCTAAGAGCGAATTTGGCCTGTAGGATCCCTGAAAGCGACGTTGGATGTAAACATCTACAAATTGCCTTTTCTTATCG  
1201 ACCATGTACGTAAGCGCTTACGTTTTTGGTGGACCCTTGAGGAACTGGTAGCTGTTGTGGGCCGTGTTGTCTCAAGATGG  
1281 ATCATTAATTTCCACCTTCACCTACGATGGGGGGCATCGCACCGGTGAGTAATATTGTACGGCTAAGAGCGAATTTGGCC  
1361 TGTAGGATCCCTGAAAGCGACGTTGGATGTAAACATCTACAAATTGCCTTTTCTTATCGACCATGTACGTAAGCGCTTAC  
1441 GTTTTTGGTGGACCCTTGAGGAACTGGTAGCTGTTGTGGGCCGTGTTGTCTCAAGATGGATCATTAAATTTCCACCTTCAC  
1521 CTACGATGGGGGGCATCGCACCGGTGAGTAATATTGTACGGCTAAGAGCGAATTTGGCCTGTAGGATCCGCGAGCTGGT  
1601 AATCCCATTTGCTTTTGAAGCAGCTCAACATTGATCTCTTCTCGATCGAGGGAGATTTTTCAAATCAGTGCAGCAAGACGT  
1681 GACGTAAGTATCCGAGTCAGTTTTTATTTTTCTACTAATTTGGTCGTTTATTTTCGGCGTGTAGGACATGGCAACCGGGCC  
1761 TGAATTTTCGCGGTATTCTGTTTCTATTCCAACCTTTTCTTGATCCGAGCCATTAACGACTTTTGAATAGATACGCTGA  
1841 CACGCCAAGCCTCGCTAGTCAAAAGTGACCAAACAACGCTTTACAGCAAGAACGGAATGCGCGTGACGCTCGCGGTGAC  
1921 GCCATTTTCGCTTTTTCAGAAATGGATAAATAGCCTTGCTTCCTATTATATCTTCCCTTAATTAAGGTACCACTTCTCTCA  
2001 ATCCAACCTTTCTAAACAATGGCTTCTAAACCTTTCTTGCTCTCTTCTTTCTTTGTCTTTGCTTTTGTTCACCTCTACTAGT  
2081 TTGGCTGACCTGTACTTCATTTTGGACAAATCAGGAAGTGTGCTGCACCACTGGAATGAAATCTATTACTTTGTGGAACA  
2161 GTTGGCTCACAAATTCATCAGCCACAGTTGAGAATGTCCTTTATTGTTTTCTCCACCCGAGGAACAACCTTAATGAAAC  
2241 TGACAGAAGACAGAGAACAATCCGTCAAGGCCTAGAAGAACTCCAGAAAGTTCTGCCAGGAGGAGACACTTACATGCAT  
2321 GAAGGATTTGAAAGGGCCAGTGAGCAGATTTATTATGAAAACAGACAAGGGTACAGGACAGCCAGCGTCATCATTGCTTT  
2401 GACTGATGGAGAACTCCATGAAGATCTCTTTTTCTATTTCAGAGAGGGAGGCTAATAGGTCTCGAGATCTTGGTGCAATTG  
2481 TTTACTGTGTTGGTGTGAAAGATTTCAATGAGACACAGCTGGCCCCGATTGCGGACAGTAAGGATCATGTGTTTCCCGTG  
2561 AATGACGGCTTTCAAGGCTCTGCAAGGCATCATCCACTCAATTTGAGCTCTGCTTCCCCAACAGCCCTAAGGTCTTCCC  
2641 TCTCAGCCTTGACAGCACCCCTCAAGATGGTAATGTTGTCGTTGCTTGCTTGTCCAGGGTTTTCTTCCCTCAGGAGCCAC

2721 TCTCTGTTACCTGGTCTGAATCTGGACAGAATGTTACCGCCAGAACTTCCCACCTAGCCAGGATGCCTCCGGTGACCTC  
2801 TACACCACCAGCTCTCAGCTCACCTTCCAGCCACCCAGTGCCCAGATGGTAAGTCCGTTACCTGCCATGTTAAGCACTA  
2881 CACCAACTCCAGCCAGGATGTTACTGTTCCATGCCGTGTTCCACCACCTCCACCATGCTGCCACCCACGTCTCTCTCTTC  
2961 ACCGTCCTGCCCTTGAGGACTTGCTCTTGGGTTCTGAAGCTAACCTCACCTGCACCCCTACCGGTCTCAGAGATGCCTCT  
3041 GGTGCCACCTTCACCTGGACCCCAAGCTCTGGTAAGAGCGCTGTTCAAGGACCACCTGAGCGTGACCTCTGTGGATGCTA  
3121 CTCTGTTAGCTCTGTTCTTCTGGTTGTGCCCAGCCTTGGAAACCAGGTGAGACCTTCACCTGCACTGCTGCCCACCCAG  
3201 AGTTGAAGACCCCACTTACCGCCAACATCACCAAGTCCGGAACACCTTCCGTCGCCGAGGTCCACCTCTTGCCACCACCA  
3281 TCTGAGGAGCTTGCCCTCAATGAGCTTGTTACCCTCACCTGCCTTGCTCGTGGATTACAGCCCAAAGGATGTTCTTGTTAG  
3361 GTGGCTTCAGGGATCTCAGGAGCTTCCACGTGAGAAGTACCTCACTTGGGCTTCCCGTCAGGAGCCAAGCCAGGGAATA  
3441 CCACCTACGCTGTTACCAGCATCCTTCGTGTTGCTGCTGAGGACTGGAAGAAGGGTGAGACCTTCTCCTGCATGGTTGGT  
3521 CACGAGGCCCTTCCACTTGCCCTCACCCAGAAGACCATTGATCGTTTGGCTGGAAAGCCAACCCACATCAATGTTTCTGT  
3601 TGTGATGGCTGAGGCTGATGGAACCTGCTACTAAGATCTGTGAATTCCTGCAGCCCGGGGGATCCACTAGTTCTAGCTAG  
3681 AGCGGCCGCCACCGCGGTGGCGAATTAACAGAGGTGGATGGACAGACCCGTTCTTACACCGGACTGGGCGCGGGATAGGA  
3761 TATTGAGATTGGGATGGGATTGAGCTTAAAGCCGGCGCTGAGACCATGCTCAAGGTAGGCAATGTCCTCAGCGTCGAGCC  
3841 CGGCATCTATGTCGAGGGCATTGGTGGAGCGCGCTTCGGGGATACCGTGCTTGTAAGTACGAGACCGGATATGAGGCCCTCA  
3921 CTCCGCTTGATCTTGCCAAAGATATTTGACGCATTTATTAGTATGTGTTAATTTTCATTTGCAGTGAGTATTTTCTATT  
4001 CGATCTTTATGTAATTCGTTACAATTAATAAATATTCAAATCAGATTATTGACTGTCAATTTGTATCAAATCGTGTTTAAT  
4081 GGATATTTTTATTATAATATTGATGATAATTCACCTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAACCCCTGGCGTTAC  
4161 CCAACTTAATCGCCTTGACGACATCCCCCTTCGCCAGCTGGCGCGCCAAGCTTCACGCTGCCGCAAGCACTCAGGGCG  
4241 CAAGGGCTGCTAAAGGAAGCGGAACACGTAGAAAGCCAGTCCGCAGAAACGGTGCTGACCCCGGATGAATGTCAGCTACT  
4321 GGCTATCTGGACAAGGGAAAACGCAAGCGCAAAGAGAAAGCAGGTAGCTTGACAGTGGGCTTACATGGCGATAGCTAGACT  
4401 GGGCGGTTTTATGGACAGCAAGCGAACCAGGAATTGCCAGCTGGGGCGCCCTCTGGTAAGGTTGGGAAGCCCTGCAAAGTA  
4481 AACTGGATGGCTTTCTTGCCGCCAAGGATCTGATGGCGCAGGGGATCAAGATCATGAGCGGAGAATTAAGGGAGTCACGT  
4561 TATGACCCCGCCGATGACGCGGGACAAGCCGTTTTACGTTTGGAAGTACAGAGAACCGCAACGTTGAAGGAGCCACTCAG  
4641 CCGCGGGTTTTCTGGAGTTTAATGAGCTAAGCACATACGTGAGAAACCATTATTGCGCGTTCAAAGTGCCTAAGGTAC  
4721 TATCAGCTAGCAAATATTTCTGTCAAAAATGCTCCACTGACGTTCCATAAATTTCCCTCGGTATCCAATTAGAGTCTCA  
4801 TATCACTCTCAATCCAGATCTGGATCGTTTTGCGATGATTGAACAAGATGGATTGCACGCAGGTTCTCCGGCCGCTTGGG  
4881 TGGAGAGGCTATTCCGGCTATGACTGGGCACAACAGACAATCGGCTGCTCTGATGCCGCCGTGTTCCGGCTGTGACGCGAG  
4961 GGGCGCCCGGTTCTTTTTGTCAAGACCGACCTGTCCGGTGCCCTGAATGAAGTGCAGGACGAGGCAGCGCGGCTATCGTG  
5041 GCTGGCCACGACGGGCGTTCCCTTGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGGAAGGGACTGGCTGCTATTGGGCG  
5121 AAGTGCCGGGGCAGGATCTCCTGTATCTCACCTTGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGG  
5201 CTGCATACGCTTGATCCGGCTACCTGCCCATTCGACCACCAAGCGAAACATCGCATCGAGCGAGCACGTAAGTCCGGATGGA  
5281 AGCCGGTCTTGTCGATCAGGATGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCCGAAGTGTTCGCCAGGCTCAAGG  
5361 CGCGCATGCCCCACGGCGATGATCTCGTCGTGACCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGC  
5441 TTTTCTGGATTTCATCGACTGTGGCCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGC  
5521 TGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTCTCGTGCTTTACGGTATCGCCGCTCCCGATTGCGAGCGCATCGCCT  
5601 TCTATCGCCTTCTTGACGAGTTCTTCTGAGCGGGACTCTGAGGATCCCCGATGAGCTAAGCTAGCTATATCATCAATTT  
5681 ATGTATTACATAATATCGCACTCAGTCTTTCATCTACGGCAATGTACCAGCTGATATAATCAGTTATTGAAATATTTT

5761 TGAATTTAACTTGCATCAATAAATTTATGTTTTTGCTTGGACTATAATACCTGACTTGTTATTTTATCAATAAATATTT  
5841 AAACATATATTTCTTTCAAGATGGGAATTAATTCAGTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAACCTGGCGTTA  
5921 CCCAACTTAATCGCCTTGACGACATCCCCCTTTGCCAGCTGGCGTAATAGCGAAGAGGCGCCGACCGATCGCCCTTCC  
6001 CAACAGTTGCGCAGCCTGAATGGCGCCCGCTCCTTTGCTTTCTTCCCTTCCTTTCTCGCCACGTTGCGCGGCTTTCCCC  
6081 GTCAAGCTCTAAATCGCGGGCTCCCTTTAGGGTTCCGATTTAGTGCTTTACGGCACCTCGACCCAAAAAACTTGATTG  
6161 GGTGATGGTTCACGTAGTGGGCCATCGCCCTGATAGACGGTTTTTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAG  
6241 TGGACTCTTGTTCCAACTGGAACAACACTCAACCCTATCTCGGGCTATTCTTTTGATTTATAAGGGATTTTGCCGATTT  
6321 CGGAACCACCATCAAACAGGATTTTCGCCTGCTGGGGCAAACAGCGTGGACCGCTTGCTGCAACTCTCTCAGGGCCAGG  
6401 CGGTGAAGGGCAATCAGCTGTTGCCCGTCTCACTGGTGAAAAGAAAAACCACCCAGTACATTAAAAACGTCCGCAATGT  
6481 GTTATTAAGTTGTCTAAGCGTCAATTGTTTACACCACAATATATCCTGCCACCAGCCAGCCAACAGCTCCCCGACCGGC  
6561 AGCTCGGCACAAAATCACCCTCGATACAGGCAGCCCATCAG

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**Figure 3. pGPTV-hpt-ocs-35SJ/SC**

1 CTGATGGGCTGCCTGTATCGAGTGGTGATTTTGTGCCGAGCTGCCGGTCGGGGAGCTGTTGGCTGGCTGGTGGCAGGATA  
81 TATTGTGGTGTAACAAATTGACGCTTAGACAACCTAATAACACATTGCCGGACGTTTTTAATGTACTGGGGTGGTTTTTC  
161 TTTTCACCAGTGAGACGGGCAACAGCTGATTGCCCTTACCAGCTGGCCCTGAGAGAGTTGCAGCAAGCGGTCCACGCTG  
241 GTTTGCCCCAGCAGGCGGAAAATCCTGTTTGATGGTGGTTCCGAAATCGGC AAAATCCCTTATAAATCAAAAGAATAGCCC  
321 GAGATAGGGTTGAGTGTTGTTCCAGTTTGGAAACAAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAA  
401 AACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCCAAATCAAGTTTTTTGGGGTCGAGGTGCCGTAAAGCAC  
481 TAAATCGGAACCTAAAGGGAGCCCCGATTTAGAGCTTGACGGGAAAGCCGGCGAACGTGGCGAGAAAGGAAGGGAAG  
561 AAAGCGAAAGGAGCGGGCGCCATTGAGGCTGCGCAACTGTTGGGAAGGGCGATCGGTGCGGGCCTCTTCGCTATTACGCC  
641 AGCTGGCGAAAGGGGGATGTGCTGCAAGGCGATTAAGTTGGGTAAACGCCAGGGTTTTCCAGTCACGACGTTGTA AACG  
721 ACGGCCAGTGAATTAATTCCCATCTTGAAAGAAATATAGTTTAAATATTTATTGATAAAATAACAAGTCAGGTATTATAG  
801 TCCAAGCAAAAACATAAATTTATTGATGCAAGTTTAAATTCAGAAATATTTCAATAACTGATTATATCAGCTGGTACATT  
881 GCCGTAGATGAAAGACTGAGTGCGATATTATGTGTAATACATAAATTGATGATATAGCTAGCTTAGCTCATCGGGGGATC  
961 CCGGTCGGCATCTACTCTATTCCTTTGCCCTCGGACGAGTGCTGGGGCGTCGGTTTTCCACTATCGGCGAGTACTTCTACA  
1041 CAGCCATCGGTCCAGACGGCCGCGCTTCTGCGGGCGATTTGTGTACGCCCGACAGTCCCGGCTCCGGATCGGACGATTGC  
1121 GTCGCATCGACCCTGCGCCCAAGCTGCATCATCGAAATTGCCGTCAACCAAGCTCTGATAGAGTTGGTCAAGACCAATGC  
1201 GGAGCATATACGCCCGGAGCCGCGGCGATCCTGCAAGCTCCGGATGCCTCCGCTCGAAGTAGCGCGTCTGCTGCTCCATA  
1281 CAAGCCAACCACGGCCTCCAGAAGAAGATGTTGGCGACCTCGTATTGGGAATCCCCGAACATCGCCTCGCTCCAGTCAAT  
1361 GACCGCTGTTATGCGGCCATTGTCCGTGAGGACATTGTTGGAGCCGAAATCCGCGTGCACGAGGTGCCGGACTTCGGGGC  
1441 AGTCTCGGCCCAAAGCATCAGCTCATCGAGAGCCTGCGCGACGGACGCACTGACGGTGTGCTCCATCACAGTTTGCCAG  
1521 TGATACACATGGGGATCAGCAATCGCGCATATGAAATCACGCCATGTAGTGTATTGACCGATTCTTGCGGTCCGAATGG  
1601 GCCGAACCCGCTCGTCTGGCTAAGATCGGCCGACGCGATCGCATCCATGGCCTCCGCGACCGGTGCAGAACAGCGGGCA  
1681 GTTCGGTTTTCAGGCAGGTCTTGCAACGTGACACCTGTGCACGGCGGGAGATGCAATAGGTGAGGCTCTCGCTGAATGCC  
1761 CCAATGTCAAGCACTTCCGGAATCGGGAGCGCGGCCGATGCAAAGTGCCGATAAACATAACGATCTTTGTAGAAACCATC  
1841 GGCGCAGCTATTTACCCGAGGACATATCCACGCCCTCTACATCGAAGCTGAAAGCACGAGATTCTTCGCCCTCCGAGA  
1921 GCTGCATCAGGTGCGAGACGCTGTGCAACTTTTCGATCAGAACTTCTCGACAGACGTGCGGGTGAGTTGAGGCTTTTTTC  
2001 ATATCTTATTGCCCCCTAGAGTCGAGATCTGGATTGAGAGTGAATATGAGACTCTAATTGGATACCGAGGGGAATTTAT  
2081 GGAACGTCAGTGGAGCATTTTTGACAAGAAATATTTGCTAGCTGATAGTGACCTTAGGCGACTTTTGAACGCGCAATAAT  
2161 GGTTCCTGACGTATGTGCTTAGCTCATTAACTCCAGAAACCCGCGGTGAGTGGCTCCTTCAACGTTGCGGTTCTGTCA  
2241 GTTCCAAACGTAAACCGCTTGTCCCGCTCATCGGCGGGGTGCTAAGCTGACTCCCTTAATTCTCCGCTCATGATCTT  
2321 GATCCCCTGCGCCATCAGATCCTTGCGGCAAGAAAGCCATCCAGTTTACTTTGCAGGGCTTCCCAACCTTACCAGAGGG  
2401 CGCCCCAGCTGGCAATTCCGGTTCGCTTGCTGTCCATAAAACCGCCAGTCTAGCTATCGCCATGTAAGCCCACTGCAAG  
2481 CTACCTGCTTTCTCTTTGCGCTTGCGTTTTCCCTTGTCAGATAGCCAGTAGCTGACATTATCCGGGGTCAGCACCGTT  
2561 TCTGCGGACTGGCTTTCTACGTGTTCCGCTTCTTTAGCAGCCCTTGCGCCCTGAGTGCTTGCGGCAGCGTGAAGCTTGG  
2641 CGCGCCAGCTGGACATCATGTTGGATATGAAACAACCTATTATTTATCTACATGTTTTAGATGTTATCTGATTATTTTAT  
2721 ACGTAGTCTTCTATTGATGAGGAGTCTAAGGCTATAGAATTATATATCTAAATGATTAATATATATATTATTAATAATTA  
2801 ACAATAATTAATATATTATAATTTATATATATATATTTTATATTATTATAATAATATTCTTACAAATATAATTATTATAT

2881 TCGACGGTATCGGGGCAATTGATTCCCGATCCTATCTGTCACCTTCATCAAAAGGACAGTAGAAAAGGAAGGTGGCACCTA  
2961 CAAATGCCATCATTGCGATAAAGGAAAGGCTATCATTCAAGATGCCTCTGCCGACAGTGGTCCCAAAGATGGACCCCCAC  
3041 CCACGAGGAGCATCGTGGAAGAAAGACGTTCCAACCACGTCTTCAAAGCAAGTGGATTGATGTGATATCTCCACTGAC  
3121 GTAAGGGATGACGCACAATCCCACTATCCTTCGCAAGACCCTTCCTCTATATAAGGAAGTTCAATTCATTTGGAGAGGAC  
3201 ACGCTGAAATCACCAGTCTCTCTCTACAAGGTACCATGGTGCTCTTCGTGCTCACCTGCCTGCTGGCGGTCTTCCCAGCC  
3281 ATCTCCACGAAGAGTCCCATATTTGGTCCCGAGGAGGTGAATAGTGTGGAAGGTAACCTCAGTGTCCATCACGTGCTACTA  
3361 CCCACCCACCTCTGTCAACCGGCACACCCGGAAGTACTGGTGCCGGCAGGGAGCTAGAGGTGGCTGCATAACCCTCATCT  
3441 CCTCGGAGGGCTACGTCTCCAGCAAATATGCAGGCAGGGCTAACCTCACCACCTCCCGGAGAACGGCACATTTGTGGTG  
3521 AACATTGCCCAGCTGAGCCAGGATGACTCCGGGCGCTACAAGTGTGGCCTGGGCATCAATAGCCGAGGCCTGTCTTTGA  
3601 TGTCAGCCTGGAGGTGAGCCAGGGTCTGGGCTCCTAAATGACACTAAAGTCTACACAGTGGACCTGGGCAGAACGGTGA  
3681 CCATCAACTGCCCTTTCAAGACTGAGAATGCTCAAAAGAGGAAGTCTTGTACAAGCAGATAGGCCTGTACCCTGTGCTG  
3761 GTCATCGACTCCAGTGGTTATGTGAATCCCACTATACAGGAAGAATACGCCTTGATATTCAGGGTACTGGCCAGTTACT  
3841 GTTCAGCGTTGTTCATCAACCAACTCAGGCTCAGCGATGCTGGGCAGTATCTCTGCCAGGCTGGGGATGATTCCAATAGTA  
3921 ATAAGAAGAATGCTGACCTCCAAGTGCTAAAGCCCGAGCCCGAGCTGGTTTATGAAGACCTGAGGGGCTCAGTGACCTTC  
4001 CACTGTGCCCTGGGCCCTGAGGTGGCAAACGTGGCCAAATTTCTGTGCCGACAGAGCAGTGGGGAAACTGTGACGTGGT  
4081 CGTCAACACCCTGGGGAAGAGGGCCCCAGCCTTTGAGGGCAGGATCCTGCTCAACCCCCAGGACAAGGATGGCTCATTCA  
4161 GTGTGGTGTATCACAGGCCTGAGGAAGGAGGATGCAGGGCGCTACCTGTGTGGAGCCCATTCGGATGGTCAGCTGCAGGAA  
4241 GGCTCGCCTATCCAGGCCTGGCAACTCTTCGTCAATGAGGAGTCCACGATTCCCCGAGCCCCACTGTGGTGAAGGGGGT  
4321 GGCAGGAAGCTCTGTGGCCGTGCTCTGCCCTTACAACCGTAAGGAAAGCAAAAGCATCAAGTACTGGTGTCTCTGGGAAG  
4401 GGGCCCAGAATGGCCGCTGCCCCCTGCTGGTGGACAGCGAGGGGTGGGTTAAGGCCCAGTACGAGGGCCGCTCTCCCTG  
4481 CTGGAGGAGCCAGGCAACGGCACCTTCACTGTCTCTCAACCAGCTCACCAGCCGGGACGCCGGCTTCTACTGGTGTCT  
4561 GACCAACGGCGATACTCTCTGGAGGACCACCGTGGAGATCAAGATTATCGAAGGAGAACCAAACTCAAGGTTCCCGGGA  
4641 ATGTACAGGCTGTGCTGGGAGAGACTCTCAAGGTCCCCTGTCACTTTCCATGCAAATTTCTCCTCGTACGAGAAATACTGG  
4721 TGCAAGTGAATAACACGGGCTGCCAGGCCCTGCCAGCCAAGACGAAGGCCCCAGCAAGGCCTTCGTGAAGTGTGACGA  
4801 GAACAGCCGGCTTGTCTCCCTGACCCTGAACCTGGTGACCAGGGCTGATGAGGGCTGGTACTGGTGTGGAGTGAAGCAGG  
4881 GCCACTTCTATGGAGAGACTGCAGCCGTCTATGTGGCAGTTGAAGAGAGGAAGGCAGCGGGTCCCGCGATGTCAGCCTA  
4961 GCGAAGGCAGACGCTGCTCCTGATGAGAAGGTGCTAGACTCTGGTTTTCGGGAGATTGAGAACAAGCCATTCAGGATCC  
5041 CAGGCTTTTTGTCAGAGTGAATTCGTTTCGTATCATCGGTTTCGACAACGTTTCGTCAAGTTCAATGCATCAGTTTCATTGCG  
5121 CACACACCAGAATCCTACTGAGTTCGAGTATTATGGCATTGGGAAAACCTGTTTTTCTGTACCATTGTTGTGCTTGTA  
5201 TTTACTGTGTTTTTTATTCGGTTTTTCGCTATCGAAGTGTGAAATGGAAATGGATGGAGAAGAGTTAATGAATGATATGGT  
5281 CCTTTTGTTCATTCTCAAATTAATATTATTTGTTTTTCTCTTATTTGTTGTGTGTTGAATTTGAAATTATAAGAGATAT  
5361 GCAAACATTTTGTGTTTGTAGTAAAAATGTGTCAAATCGTGGCCTCTAATGACCGAAGTTAATATGAGGAGTAAACACTTG  
5441 TAGTTGTCGACGGTATCGATATTAATTCCTGATCCTATCTGTCACTTCATCAAAAGGACAGTAGAAAAGGAAGGTGGCAC  
5521 CTACAAATGCCATCATTGCGATAAAGGAAAGGCTATCATTCAAGATGCCTCTGCCGACAGTGGTCCCAAAGATGGACCCC  
5601 CACCCACGAGGAGCATCGTGGAAGAAAGACGTTCCAACCACGTCTTCAAAGCAAGTGGATTGATGTGATATCTCCACT  
5681 GACGTAAGGGATGACGCACAATCCCACTATCCTTCGCAAGACCCTTCCTCTATATAAGGAAGTTCAATTCATTTGGAGAG  
5761 GACACGCTGAAATCACCAGTCTCTCTCTAGAGTACCATGGAGAACCATTGCTTTTCTGGGGAGTCTGGCGGTTTTTAT  
5841 TAAGGCTGTTTCATGTGAAAGCCCAAGAAGATGAAAGGATTGTTCTTGTGACAACAAATGTAAGTGTGCCCGGATTACTT

5921 CCAGGATCATCCGTTCTTCCGAAGATCCTAATGAGGA.CATTGTGGAGAGAAACATCCGAATTATTGTTCCCTCTGAACAAC  
6001 AGGGAGAAATATCTCTGATCCACCTCACCATTGAGAACCAGATTTGTGTACCATTTGTCTGACCTCTGTAAAAAATGTGA  
6081 TCCTACAGAAGTGGAGCTGGATAATCAGATAGTTACTGCTACCCAGAGCAATATCTGTGATGAAGACAGTGCTACAGAGA  
6161 CCTGCTACACTTATGACAGAAACAAGTGCTACACAGCTGTGGTCCCACTCGTATATGGTGGTGAGACCAAAATGGTGGAA  
6241 ACAGCCTTAACCCAGATGCCTGCTATCCTGACTGAATCCGCGGCGATGAGCTAAGCTAGCTATATCATCAATTTATGTA  
6321 TTACACATAATATCGCACTCAGTCTTTCATCTACGGCAATGTACCAGCTGATATAATCAGTTATTGAAATATTTCTGAAT  
6401 TTAACTTGCATCAATAAAATTTATGTTTTTGGCTTGGACTATAATACCTGACTTGTTATTTTATCAATAAATATTTAACT  
6481 ATATTTCTTTCAAGAGCTCAAATTTGGATTGTAAATAATAAACGCAATTGTTTGTATTGTGGCGCTCTATCATAGATG  
6561 TCGCTATAAACCTATTTCAGCACAAATATATTGTTTTTCATTTTAATATTGTACATATAAGTAGTAGGGTACAATCAGTAAAT  
6641 TGAACGGAGAATATTATTCATAAAAAATACGATAGTAACGGGTGATATATTCATTAGAATGAACCGAAACCGGCGGTAAGG  
6721 ATCTGAGCTACACATGCTCAGGTTTTTTACAACGTGCACAACAGAATTGAAAGCAAATATCATGCGATCATAGGCGTCTC  
6801 GCATATCTCATTAAGCAGTGAATTCAGATCGGCTGAGTGGCTCCTTCAACGTTGCGGTTCTGTGAGTTCCAAACGTAAA  
6881 ACGGCTTGTCCCGCGTCATCGGCGGGGTCATAACGTGACTCCCTTAATTCTCCGCTCATGATCAGATTGTGTTTTCCCGC  
6961 CTTGAGTTTAACTATCAGTGTGTTGACAGGATATATTGGCGGGTAAACCTAAGAGAAAAGAGCGTTTATTAGAATAATCG  
7041 GATATTTAAAGGGCGTGAAAAGGTTTATCCGTTTCGTCCATTTGTATGTGCATGCCAACACAGGTTCCCCAGATCTGGC  
7121 GCCGGCCAG

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